EQ-99X LDLS™

Compact, High-Brightness, Long-Life, Broadband Laser-Driven Light Source

Advanced imaging and analytical spectroscopy applications in the life sciences and materials sciences need light sources capable of providing extremely high brightness across broad wavelength range. Traditionally, multiple lamps (Tungsten/Halogen, Xenon-arc, Deuterium) have been used to cover this broad spectral range. However, combining multiple lamps is costly and optically inefficient, and the use of electrodes within these lamps limits their ability to achieve the high brightness or power needed for the most demanding applications. Furthermore, traditional electrode-driven light sources have short life, need to be changed frequently, and during their life the lamp output declines constantly. To address these problems, Energetiq has developed a revolutionary single-light source technology called the LDLS™ Laser-Driven Light Source that enables extreme high brightness with a relatively flat spectrum, from 170nm through visible into the near infrared, combined with life-time an order of magnitude longer than traditional lamps.

The LDLS technology is fully embodied in the compact EQ-99X - a high brightness, high stability broadband source that is specifically designed for demanding imaging and spectroscopy applications. The Energetiq EQ-99X offers excellent spatial and power stability for highly repeatable measurements across the broad spectrum. Utilizing a patented laser-driven bulb technology* and ultra-clean construction, the EQ-99X is ideal for applications requiring ultra-long lamp life combined with high broadband brightness.

* Multiple Patents Worldwide

Features and Benefits

- CW laser plasma discharge
  - 100µm - 200µm plasma size
- Very high brightness across spectrum
  - UV-Vis-NIR (170nm - 2100nm)
- Eliminates need for multiple lamps
  - Replaces D2/Tungsten/Xenon Arc
- Excellent spatial and power stability
  - Repeatable measurements
- Ultra-clean construction
  - Improved stability & extended life
- Electrodeless operation for long life
  - Reduced cost of ownership

Applications

- UV-Vis-NIR Spectroscopy
- Monochromator Source
- Thin-Film Measurements
- Optical Component Testing
- Environmental Analysis
- Materials Characterization
- Gas Phase Measurements
- Advanced Imaging/Illumination
- Applications requiring long lamp life

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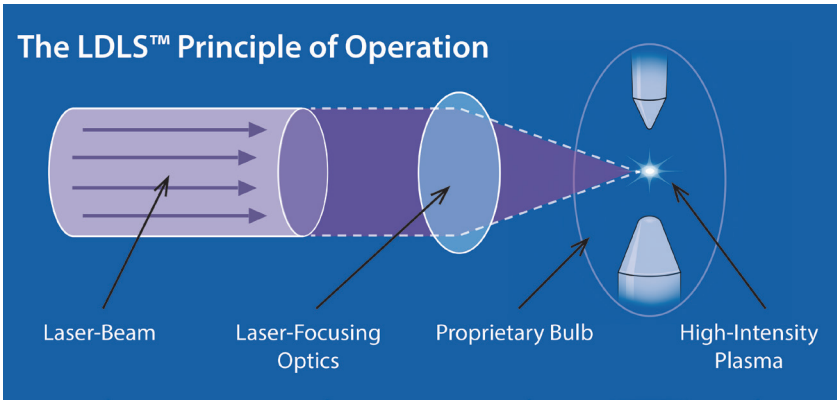


EQ-99X lamp house with power supply

Specifications

Overview

- Spectral output from 170nm to 2100nm
- Large collectable view angle – Numerical Aperture (NA): up to 0.47
- Typical bulb life > 9,000 hrs.
- Flexible optical interface for free-space optics (SM1 thread)
- Various precision reflective coupling optics are available from Energetiq - call for details

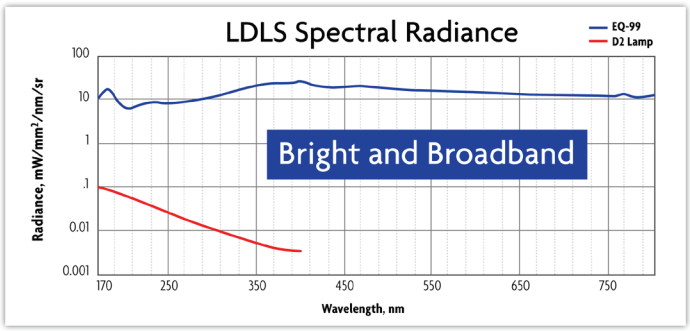
Physical Specifications

	System Dimensions (H x W x D)	Weight
• Lamp House	82.3 x 85.7 x 76.2 mm (3.2 x 3.4 x 3.0 in)	0.7 kg (1.5 lbs)
• Power Supply	107 x 111 x 254 mm (4.2 x 4.4 x 10 in) (excl feet)	1.4kg (3 lbs)

Utility Requirements

• Electrical	100-240v, 50/60Hz, 2.5A
• Cooling	Ambient air, no auxiliary cooling necessary
• Nitrogen	Recommended purging for longest life & for DUV operation, Grade 6
• Compliance	CE Mark, Class 1 Laser Product

Patent Numbers: US 7,435,982; US 7,786,455; GB 2,450,045; Other patents applied for.



About Energetiq

Energetiq Technology, Inc. is a developer and manufacturer of advanced light sources that enable the analysis and manufacture nano-scale structures and products. The Energetiq team combines its deep understanding of the high power plasma physics needed for high-brightness light generation with its long experience in building rugged industrial & scientific products. The result is that users can expect the highest levels of performance combined with the highest reliability.

ENERGETIQ

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Specifications are subject to change without notice.
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